DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT
OF 85-526

PREPARED IN COOPERATION WITH
THE NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES

PURGATORY
MOUNTAIN

EXPLANATION

Q QUARTZ VEIN

EXPLANATION

q	QUARTZ VEIN
qp	QUARTZ PORPHYRY--Gray, massive, with phenocrysts of quartz and feldspar. Quartz phenocrysts are commonly as large as 3 mm and locally are 8 mm. Occurs as dikes and other small, probably intrusive bodies
fp	FELDSPAR PORPHYRY--Green, exposed in several small, probably intrusive bodies. Contains feldspar phenocrysts in a fine-grained groundmass. Probably andesitic to felsic in composition
flv_1	FELSIC LAVA FLOW(S)--Gray, exposed in western part of park. Contains phenocrysts of feldspar. Flow layered in part
flv_2	FELSIC LAVA FLOWS--Gray exposed from eastern part of park to northeast of Purgatory Mountain. Contains small phenocrysts of feldspar and, in part, quartz. Locally flow layered
flv	FELSIC LAVA--Gray, in several small bodies, with small feldspar and, in part, quartz phenocrysts. May be partly or wholly intrusive
flt	FELSIC LAPILLI TUFF AND TUFF--Gray. Massive to weakly foliated rock composed of tightly compacted sand- and silt-sized volcanic rock fragments and quartz and feldspar grains, commonly with scattered volcanic rock fragments larger than 4 mm (lapilli). Generally without visible bedding; rarely thin to thick bedded
gt	TUFF AND LAPILLI TUFF--Green. Visual estimates suggest the chemical composition may range from felsic to nearly mafic with siliceous andesite perhaps most common. Composed of small volcanic rock fragments, feldspar, and, in part, quartz grains. Locally very rich in feldspar crystals. Less hard and resistant to weathering than flt

LIMIT OF OUTCROP OR AREA OF ABUNDANT OUTCROPS

CONTACT--South contact of gt may be a fault

STRIKE AND DIP OF CLEAVAGE
- Inclined
- Vertical

STRIKE AND DIP OF FLOW LAYERS
- Inclined
- Vertical

STRIKE AND DIP OF BEDS

PROSPECT PIT

CONTOUR INTERVAL - 5 feet

SCALE: 1 inch = 400 feet

400 0 400 800 1200

Grid Based on N.C. State Plane Coordinate System, N.A.1927
Elevations Refer to 1929 Mean Sea Level Datum

PRELIMINARY GEOLOGIC MAP OF THE NORTH CAROLINA ZOOLOGICAL PARK, RANDOLPH COUNTY, NORTH CAROLINA

By
Victor M. Seiders

1985

Geology mapped in 1974 by V.M. Seiders, assisted by L.D. Gray

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.